

Unit 1 Review:

- Metric System
 - Use bases and prefixes to give the units of a quantity
 - Seven different bases
 - We learned six prefixes
 - Smaller number to a larger number → decimal moves left
 - Larger number to smaller number → decimal moves right

- Scientific Notation
 - Way of writing really large or really small numbers easily
 - Convert from decimal to scientific notation or scientific notation to decimal
 - Form is $\text{---} \cdot \text{---} \times 10^{\text{---}}$
 $\text{---} \cdot \text{---} \text{E} \text{---}$

- Scientific Method:

- Observe
 - Research
 - Hypothesis
 - Test hypothesis
 - Gather data
 - Conclude
 - Share
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- Variables

- Independent Variable →
you change this one

- Dependent Variable →
gets changed by changing
independent variable

- Constants → variables that
stay the same during the
experiment

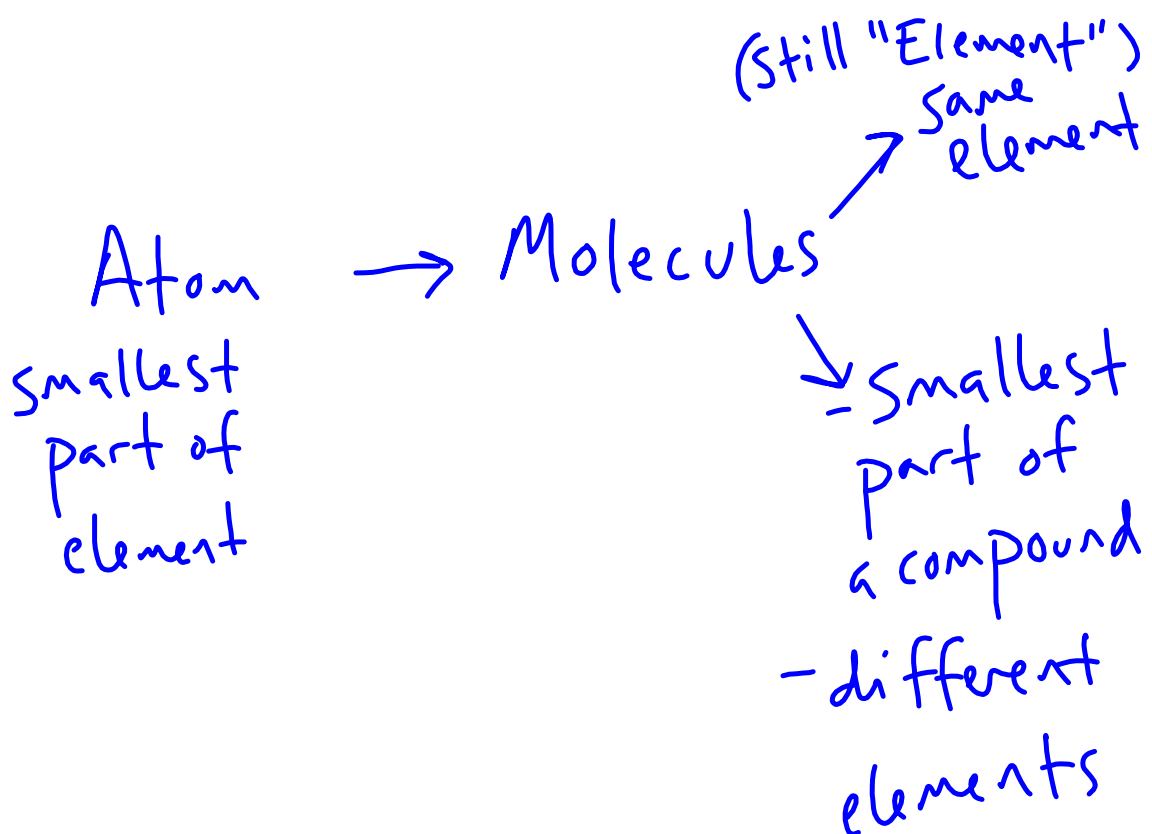
- Groups

- Experimental → independent
variable IS changed

- Control → independent
variable is NOT changed

- Physical v. Chemical Changes and Properties:
 - Physical Properties → observable items about an object
 - Chemical Properties → properties defined by the chemical composition of an object
 - Physical Changes → changes in physical properties, but the underlying material stays the same
 - Chemical Changes → changes in chemical structure of the object
- (6th indicator: A precipitate forms)

- Types of Matter
 - Mixtures
 - Homogeneous
 - Heterogeneous
 - Substances
 - Elements
 - Compounds



- Phases of Matter:
 - BEC, solid, liquid, gas, plasma
(least energy to most energy)
 - Terms for changing from one phase to another
 - Melting point → exists both as solid and liquid
 - Boiling point → exists both as liquid and gas

- Density:

- $\frac{\text{mass}}{\text{volume}}$

- see notes for practice problems